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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,675	09/28/2006	Takeo Senoo	0033-1106PUS1	2225

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BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER
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CHIESA, RICHARD L

ART UNIT	PAPER NUMBER
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1797

NOTIFICATION DATE	DELIVERY MODE
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03/02/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/594,675	<b>Applicant(s)</b> SENOO, TAKEO	
	<b>Examiner</b> Richard L. Chiesa	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed on February 2, 2009 has been entered.

### ***Election/Restrictions***

2. Applicant's election with traverse of species B (Figures 5-7) in the reply filed on February 2, 2009 is acknowledged. The traversal is on the grounds that since there was no lack of unity of invention in the PCT application, there should be no lack of unity in this application. This is not found persuasive because the paragraph 138 noted by applicant only refers to the international application and not the national stage. Furthermore, MPEP section 1850(I) only requires conformance with PCT Rules 13.1 and 13.2 when making any restriction or election of species requirements. The election of species requirement dated January 2, 2009 was made under PCT Rule 13.1 and 13.2 as noted in paragraphs 6 and 8 on page 3 of that Office action.

The requirement is therefore still deemed proper. However, the examiner has decided to withdraw the election of species requirement in order to expedite prosecution. Consequently, all of the pending claims 1-5 are being treated on the merits.

### ***Claim Rejections - 35 USC § 102/103***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Great Britain Patent No. 2000687 to Hanke et al. Hanke et al (note Figures 1, 2, 7-16) show a sewage water aeration apparatus with a tubular portion 3, inlet 1, outlet 7, nozzle portion 4, nozzle opening having at least two parallel (Figure 14) or non-parallel (Figure 15) line segments, and an air supply means 6 positioned perpendicularly and closely to the nozzle opening line segments as claimed (35 USC 102b). It would appear that Hanke et al may not explicitly state that the sewage water aeration apparatus is a water purifying apparatus. However, Hanke et al do explain on page 1, lines 6-28 that the water is undergoing a cleaning action. Consequently, it is inherent or at least would have been readily obvious to one having ordinary skill in the art (35 USC 103a) that water is indeed being purified in the Hanke et al sewage water aeration apparatus. Finally, the expression “air supply means for mixing air taken in from outside said tubular portion” on lines 8 and 9 of claim 1 is not considered to be a means-plus-function statement under 35 USC 112, sixth paragraph because it is modified by structure or acts (e.g. “air supply”, and “air taken in from outside said tubular portion”) for

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achieving the specified function. In any case, Hanke et al's air supply means 6 is apparently identical to applicant's air supply means shown as reference numeral 6 in Figure 1.

6. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanke et al in view of U.S. Patent No. 4,308,138 to Woltman. Hanke et al, as described above in paragraph 5, disclose a water purifying apparatus substantially as claimed with the possible exception of the air supply outlet facing the line segments of the nozzle opening. In any case, Woltman teaches the well-known use of an air outlet (note ref. num. 20, 37, 38, Figure 2) facing the line segments of the nozzle opening 30 in a water purifying apparatus for the purpose of achieving an advantageous fanning action and complete fluid mixing (note col. 5, lines 4-26). Therefore, it would have been obvious to one of ordinary skill in the art to employ an air outlet facing the line segments of the nozzle opening in the Hanke et al water purifying device in order to facilitate a full complete mixing of water and air as taught by Woltman.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These references have been cited as art of interest to show other gas-liquid mixers.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard L. Chiesa whose telephone number is (571) 272-1154.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane S. Smith, can be reached at (571) 272-1166.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 1700 receptionist whose telephone number is (571) 272-1700.

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Facsimile correspondence must be transmitted through (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richard L. Chiesa  
February 25, 2009

**/Richard L. Chiesa/  
Primary Examiner  
Art Unit 1797**